#### CITY COUNCIL RESOLUTION NO. 2022-063

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF LAKE CITY, FLORIDA, AUTHORIZING THE EXECUTION OF CHANGE ORDER ONE TO TASK ASSIGNMENT SEVEN WITH JONES EDMUNDS & ASSOCIATES, INC.; PROVIDING FOR AN AMENDMENT TO THE SCOPE OF WORK RELATED TO THE CONSTRUCTION OF MODIFICATIONS TO THE RECLAIMED WATER PRODUCTION FACILITIES AT THE SISTER'S WELCOME ROAD WASTEWATER FACILITY; PROVIDING FOR COMPENSATION OF \$18,200.00 AND INCREASING THE CONTRACT PRICE TO A TOTAL OF \$78,078.00; PROVIDING FOR A CHANGE IN THE DURATION OF THE AGREEMENT; AND PROVIDING FOR AN EFFECTIVE DATE.

**WHEREAS,** the City of Lake City, Florida (hereinafter the "City") and Jones Edmunds & Associates, Inc., (hereinafter "Jones Edmunds") entered into Task Assignment Number Seven to the Continuing Contract as authorized by City Council Resolution No. 2021-089; and

**WHEREAS,** Task Assignment Number Seven (hereinafter "TA 7") lists certain work to be performed by Jones Edmunds within two hundred (200) days of the issuance of a Notice to Proceed; and

**WHEREAS,** the work to be performed by Jones Edmunds has been interrupted and the City administration recommends that the deadline for completion of the work be extended indefinitely; and

**WHEREAS,** the City desires to modify the scope of work identified in TA 7 (the Sisters Welcome PAR Upgrades Project) as reflected in the "Exhibit A" attached hereto, increasing the fee for compensation to \$78,078.00; and

**WHEREAS,** the City Council finds that it is in the City's best interest to amend the scope of work identified as the "PROJECT" in TA 7, and the compensation, pursuant to and in accordance with the respective terms and conditions included in Exhibit A; and

**WHEREAS,** the City Council finds that it is in the City's best interest to amend the deadline for completion of the work to reflect an indefinite time period, and leaving all other provisions of the Contract in full force and effect.

# NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF LAKE CITY, FLORIDA, AS FOLLOWS:

**Section 1**. The above recitals are all true and accurate and are incorporated herein and made a part of this Resolution.

<u>Section 2.</u> The City is hereby authorized to execute the amendment with Jones Edmunds for the additional services and extend the deadline for completion of the work to an indefinite period.

**PASSED AND ADOPTED** at a meeting of the City Council this \_\_\_\_\_ day of June 2022.

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	CITY OF LAKE CITY, FLORIDA
	By: Stephen M. Witt, Mayor
	Stephen M. Witt, Mayor
ATTEST:	APPROVED AS TO FORM AND
	LEGALITY:
By:	By:
Audrey E. Sikes, City Clerk	Frederick L. Koberlein, Jr., City Attorney

# **CHANGE ORDER**



# Sisters Welcome PAR Upgrade, Added Items

**TO:** Paul Dyal

Interim City Manager

692 SW Saint Margarets Street

Lake City, Florida 32025

FROM: Jamie Bell, PE, Department Manager, Jones Edmunds

**DATE:** May 5, 2022

**SUBJECT:** Sisters Welcome PAR Upgrades Project – Additional Items

Jones Edmunds Project No. 08504-026-02

# 1 PURPOSE

At the 90% review meeting for the Ichetucknee Springs Quality and Quantity Enhancement Project, the City of Lake City requested modifications that are beyond the scope of that project. Additionally, the City requested modifications to the Sisters Welcome PAR Upgrades Project, which Jones Edmunds has nearly completed. This change order reflects the additions to both projects as add-ons to the Sisters Welcome PAR Upgrades Project.

#### 2 BACKGROUND

In accordance with the City of Lake City's Resolution 2021-089 TA 7, Jones Edmunds is currently engaged in the review and update of the previously bid Sisters Welcome PAR Upgrades plans and specifications. This includes reviewing the 2018 design plans, front-end documents, and technical specifications for completeness and accuracy; updating the design plans if necessary to meet current standards and regulations; updating the content of the specifications as needed; updating the formatting of the general condition specifications from the 2007 Engineers Joint Contract Documents Committee (EJCDC) to the 2018 EJCDC standard; coordinating with the structural engineer and providing final signed-and-sealed construction documents to the City for bidding.

Due to increasing operational costs, the City contracted with Wetland Solutions, Inc. (WSI) and Jones Edmunds to develop design plans to bypass the effluent pumping system with a gravity line tie-in that will circumvent the reservoir pond and discharge directly to the wetland inlet structures. The City received a grant through the Florida Department of Environmental Protection (FDEP) Springs Funding Program for the Ichetucknee Springs Quality and Quantity Enhancement (ISQ2E) Project that includes the gravity-line modification as well as the construction of an aquifer recharge well to increase recharge capacity at the wetlands. The ISQ2E Project is currently in the bidding phase.

During the Underground Injection Control permitting phase of the ISQ2E Project, FDEP indicated that the treated effluent discharge to the wetlands may need to be chlorinated to meet the water quality standards of a Class V recharge/drainage well. To meet this need, the gravity system modification will include a bypass pipe from downstream of the Entrex Disc Filters and the chlorine contact chamber (CCC) to the existing effluent irrigation system (EIS). This design connects the treated effluent flows from the control structure to the 24-inch ductile iron EIS pipeline and into wetland Inlet Structures No. 1, 2A, and 2B. The inlet structures at each cell will be modified to allow additional flow and to provide for additional air release and reliable flow measurements even in situations when the pipeline is partially full.

Jones Edmunds needs to evaluate this option fully and verify that adequate head is available to enable water to gravity-flow through the filters, the CCC, and the additional piping and a potential new magnetic flowmeter. The ISQ2E did not include evaluating design changes to the filtration and/or chlorination systems to allow the system to use gravity feed. These changes will be evaluated and designed in the Sisters Welcome PAR Upgrades Project. Additionally, gravity system will be modified to include additional connection points for potential future pipe connections that may relate to pumping treated effluent from the wetlands to the PAR system for additional filtration and disinfection.

The City of Lake City has requested the PAR Upgrades Project include the following items:

#### Hydraulic Analysis of Gravity Flow:

Jones Edmunds will evaluate and verify that adequate head is available to enable water to gravity-flow through the existing filters, the new CCC, the additional piping, and a proposed magnetic flowmeter to the EIS pipeline connection.

#### New 24-inch Pipe to Connect to 24-inch EIS pipe:

A new 24-inch effluent line will be constructed downstream of the Entrex Disc Filters and new chlorine contact chamber (CCC) to connect to the 24-inch ductile iron EIS pipeline installed as part of the *Ichetucknee Springs Quality and Quantity Enhancement Project*. Jones Edmunds will update the plans with details of the new section of pipe to connect into the 24-inch EIS piping. Additionally, the pipe section immediately upstream of the Filter will be adjusted to accommodate potential future connections for a wetland repump system.

## Addition of Motor-Operated Valves (MOVs):

Jones Edmunds will update the plans and specifications to include the MOVs and schema configuration required for the control of flow to the new EIS pipeline and the control of flow through the existing filters/new CCC to either the PAR and/or EIS systems. The following are the required two scenarios:

1. MOVs and schema configuration to route the gravity flow from the flow-control structure to the new EIS pipeline:

- a. Existing Valve # 6/MOV-10-1-1, to **CLOSE** the flow to the disc filter/CCC.
- b. New Gate Valve V690, to **OPEN**, installed as part of the *Ichetucknee Springs Quality and Quantity Enhancement Project*. Upgrades to this valve will include motor, power, control and add conduits to control the MOV from the disc filter control panel.
- 2. MOVs and configuration to route the gravity flow from the flow control structure through the Disc Filters/CCC to the either the PAR and/or EIS pipeline:
  - a. Existing Valve # 6/MOV-10-1-1, to **OPEN** the flow to the disc filter/CCC system.
  - b. <u>New Gate Valve V690, to **CLOSE**</u> installed as part of the *Ichetucknee Springs Quality and Quantity Enhancement Project*. This is the same valve as 1b noted above.
  - c. Existing Valve #8/MOV 10-1-4 relocated to **CLOSE** the flow to the PAR system and route flow from disc filters/CCC system to the EIS pipeline.
  - d. New Valve to **OPEN** the flow to route flow from disc filters/CCC system to the EIS pipeline.
  - e. <u>Valve 2c to **CLOSE** and 2d to **OPEN**</u> to close flow to EIS pipeline and open flow to PAR system.

#### MOVs Power and Control:

Jones Edmunds will design and specify the electrical components required for the operation of the new MOVs. This will include the coordination with the City's Supplementary Control and Data Acquisition (SCADA) integration contractor for the schema and control of the new MOVs.

### Magnetic Flowmeter:

The City of Lake City requested that Jones Edmunds include a magnetic flowmeter on the gravity line to the EIS to measure the total amount of flow going to the wetland and sprayfield.

Jones Edmunds has the following concerns with adding a magnetic flowmeter:

- The EIS has a propeller flowmeter to measure pumped flow to the sprayfield. The disc filter has a magnetic flowmeter measuring the flow to the disc filter. The Ichetucknee Springs Quality and Quantity Enhancement Project provides an H-flume at each wetland inlet to allow measurement of the flow to each wetland cell. The City will need to close the valves to each wetland cell before turning on the pumps and routing flow to the sprayfield. Conversely, it has been confirmed that the flow measurement system provides the flow measurement required by FDEP
- Magnetic flowmeters only function when the line is flowing full. When the EIS is flowing by gravity it will not always be full, which will result in significant errors in flow measurement. The City will not have the means to determine when the pipeline is full or when it is partially full and will question the accuracy of the flowmeter.

- The magnetic flowmeter will be installed on an existing pipeline that is approximately 9 feet below grade. The vault will be approximately 8 feet long by 4 feet wide and need to be designed to allow for H-20 vehicle loading because the pipeline is under the roadway. The vault will also be a confined space requiring entry approximately four times per year for maintenance. Design of the vault will require additional structural engineering.
- The additional magnetic flowmeter and manhole/vault will add little to no operational value to the plant. The pipe is 24-inch-diameter and is approximately 9 feet below ground. Installing the vault will be costly.

## **3 COMPENSATION**

As a result of the additional services outside of the original project scope and fee, Jones Edmunds is requesting additional compensation in the amount of **\$18,200**, as presented in the following table.

Task		Cost	
	TA 7	Change Order	Total
Design Services, Task 1 – Construction Documents Update	\$9,878	\$18,200	\$28,078
Design Services, Task 2 – Bidding Services and Support	\$10,000	-	\$10,000
PSDC-Task 1-4	\$40,000	-	\$40,000
Total Fee	\$59,878		\$78,078

	CITT OF DAILD CITT, FLORIDA
	By: Stephen M. Witt, Mayor
ATTEST:	APPROVED AS TO FORM AND LEGALITY:
By:Audrey E. Sikes, City Clerk	By: Frederick L. Koberlein, Jr., City Attorney
ATTEST:	JONES, EDMUNDS & ASSOCIATES INC.
By: Angela Witt, Contracts Administrator	By: Stanley F. Ferreira, Jr., Vice President

CITY OF LAKE CITY FLORIDA